

1 WHAT IS CLAIMED IS:

2 1. A chip comprising a plurality of sensors.

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4 2. A chip of claim 1 comprising a plurality of sensors,
5 each of which contains one or more light sources and one or
6 more optical detectors.

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8 3. A chip of claim 2 in which the light source is an
9 electro-luminescent material.

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11 4. A chip of claim 2 in which the light source is an organic
12 electroluminescent material.

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14 5. A chip of claim 2 in which the light source is an
15 inorganic electroluminescent material.

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17 6. A chip of claim 2 in which the light source is connected
18 by conductive electrodes.

1 enzyme.

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3 31. A chip of claim 2 in which each sensor is coupled to a
4 porous silica gel microsphere containing an antibody.

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6 32. A chip of claim 2 in which each sensor is coupled to a
7 porous silica gel microsphere encapsulating a living cell.

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